REMARKS

Claims 1-4, 9 and 11-19 are all the claims that have been examined. By this Amendment, Applicant cancels claims 1, 14-16, and 18. Hence, claims 2-4, 9, 11-13, 17, and 19 are all the claims pending in the Application.

Preliminary Matters

Applicant thanks the Examiner for acknowledging the claim for foreign priority and confirming receipt of the certified copy of the priority document.

Claim Rejections - 35 U.S.C. § 112

Claims 14, 15 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. By this Amendment, Applicant cancels claims 14 and 15.

Claim Rejections - 35 U.S.C. § 103

Claims 1-4, 9, 11, 14, and 15

Claims 1-4, 9, 11, 14 and 15 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over US Patent No. 6,373,507 to Camara et al. (hereinafter "Camara") in view of the Universal Serial Bus (USB) Specification, Revision 1.0. Applicant also submits that claims 16-19 are rejected under this combination of references. See Office Action, page 9-10.

By this Amendment, Applicant cancels claim 1 and amends claims 2-4, 12, 13, 16, and 18 to change their dependencies to independent claim 11. Applicant also cancels claims 16 and 18. Applicant submits that the rejection is moot with respect to claims 1, 14-16, and 18.

Applicant submits that the Examiner ignores important teachings of the USB

specification and recitations of the claims in rejecting pending independent claim 11. Applicant

directs the Examiner's attention to the following aspects of bulk transfer:

First, the bulk transfer pipe is a "stream pipe" and therefore has data constantly draining

into (or out of) the host. In this regard, the pipe is being "depleted" of the data as the data is

input into the pipe from the buffer memory of a USB device scanning data. There is no

preservation of data in the pipe, or output from the buffer, in such circumstance. See USB

Specification section 5.8.2.

Second, the bulk transfer does not have a NAK, except when the sending device is not

available. See USB Specification section 8.5.1. Applicant submits that in the instance where the

transferring device is not available, there will be no data transfer because the data transferring

device is not available to transfer the data.

Third, the STALL signal is the output event that occurs when an error has taken place

during a bulk transfer. See USB Specification section 5.3.2. In this situation, the pipe is

essentially flushed of any pending packets (IRP's). Because the pipe is consistently drained, the

image data is also drained out of the buffer memory. See USB Specification section 5.8.2.

Applicant submits that NAK operations in bulk transfers do not operate according to Fig. 8-17 as

the Examiner contends. See last paragraph of USB Specification section 5.8.2.

Thus, in the bulk transfer mode, any retransfer (due to data loss) must result from a restart

of the image data source, or in effect a rescan of the data. In such situation, the data

"retransmitted" is not the data at the time of reading of the image data, but rather is image data

from a second (subsequent) scan of the image. By contrast, claim 11 describes retransmission of the image data, said image data being the image data obtained at the time of reading (not the time of re-reading) as would be required by a STALL recovery for bulk transfers.

Stated differently, the buffer memory of claim 11 has a dual characteristic reading (an) image data at a time of reading and retransmitting said (same) data in the event of data loss during transfer over the network. By contrast, the STALL recovery for bulk transfers requires a client to be reset, thereby requiring a completely different scan of image data. Applicant submits that this is not the prior buffered image data. Furthermore, the present application relates to a CR system, in which data can be read from an imaging plate only once. Therefore, Applicant submits that the retransmission mechanism using the buffer memory recited in claim 11 is essential to the CR system. Applicant submits that such a feature is not taught or even suggested in the cited references. Therefore, Applicant submits that claim 11 is patentable over the cited art for the above reasons.

Further regarding claim 11, in response to the arguments presented in the previous Amendment, the Examiner asserts that "a single error with a successful retry, for example, could happen relatively quickly and would not necessarily result in the USB buffer becoming lost." See Office Action, page 4, 1st full paragraph. Applicant submits that the Examiner's arguments are inconsistent with respect to claim 11 and claim 1. The Examiner may not arbitrarily assume that the USB network will be operating quickly for the purposes of rejecting claim 11, since in rejection claim 1, the Examiner made it clear that a USB network may operate at a variable rate of speed. See Office Action, page 2, section 1. As a result of this inconsistency, Applicant submits that the rejection is improper.

In light of the above, Applicant submits that the combination of Camara and the USB Specification does not teach every element of claim 11. Therefore, Applicant submits that claim 11 is patentable over the cited art, and requests that the rejection be withdrawn. Furthermore, Applicant submits that claims 2-4, 9, 17, and 19 are patentable over the cited art at least by virtue of their respective dependencies.

Further regarding claim 19, Applicant submits that this claim is further patentable over the cited art for the additional requirements for the variable data output, which Applicant submits are not taught in the cited art.

Claim 19 claims "the image data...is sequentially stored in the buffer memory and is simultaneously sequentially output from the buffer memory, wherein the buffer memory outputs data at a variable rate depending on a data transfer rate of the network" (emphasis added). Applicant submits that the buffer operation includes a dual characteristic. Applicant further submits that this dual characteristic is not met by any of the cited references, either alone or in combination.

Applicant submits that claim 19 claims features similar to those of claim 1. In the rejection of claim 1, the Examiner relies on the bulk transfer feature of a USB device to teach the "variable transfer" from the buffer. The Examiner concedes that a bulk transfer may happen quickly or slowly depending on bandwidth availability of the network. In view of the fact that the buffered memory may not be output, except on a "bandwidth available" basis, Applicant submits that it is not inherent that the buffer will be able to sequentially output the image data and simultaneously sequentially store the data as claimed. Rather, based on the Examiner's own

admission, Applicant submits that the buffer may have to hold the image data for quite some

time before the buffer is able to send a data via the bulk file transfer. Therefore, contrary to the

Examiner's apparent contention, Applicant submits that there can be no guarantee that the data

will be transferred from the buffer while simultaneously the memory is read into the buffer, and

that the data transfers at a variable rate.

Applicant submits that the Examiner's general reliance on Fig. 5 of Camara in the

rejection of claim 1 does not support the rejection, as the progressive row-by-row output

suggests output at a constant rate, rather than a variable one. This type of operation is not

consistent with the operation of output of the buffer at a variable rate due to unpredictable bulk

transfer as the Examiner's rejection suggests. Since the USB specification contemplates output

at a fixed or known rate and not just the bulk transfers, the progressive display can be achieved

in Camara by such constant rate transfer.

Therefore, Applicant submits that the cited art does not teach all features of claim 19. In

particular, the output of the image data from the buffer memory is not an necessarily occurring at

a variable rate while the data is being simultaneously read into the buffer. Applicant submits that

claim 19 is patentable over the cited art for this reason in addition to its dependency from claim

11.

Claims 1, 12, 13, 14, 16, and 18

Claims 1, 12, 13, 14, 16 and 18 are rejected under 35 U.S.C. § 103(a) as being

unpatentable over US Patent No. 5,564,012 to Shigyo et al. (hereinafter "Shigyo") in view of

Camara and further in view of the Universal Serial Bus (USB) Specification, Revision 1.0.

Applicant submits that as claim 11 is not rejected under this combination of references, and Shigyo does not cure the above-noted deficiencies in Camara and the USB Specification, claims 12 and 13 are patentable over the cited art at least by virtue of their respective dependencies.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.
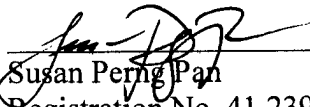
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CUSTOMER NUMBER

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